

view of the foregoing amendments and the following remarks.

The title has been changed to overcome the Examiner's objection.

Claims 1-4 were rejected under 35 U.S.C. §103(a) as being unpatentable over Asakura et al. in view of Kubota et al. This rejection is respectfully traversed.

The Examiner admitted that neither Asakura nor Kubota disclose a second optical rotation layer disposed as claimed in the present invention. However, the Examiner argues that it would have been obvious to replace the absorbing polarizer of Asakura with an optical rotation layer as recited in instant claims. Office Action at 2, 4-5.

An absorbing polarizer or polarizing plate is an optical device for turning natural light into a linearly polarized light along a polarization axis of the polarizing plate. In this process, the polarizing plate absorbs the other light components of natural light. Thus, the quantity of light of the linearly polarized light is theoretically 50% or lower compared to the quantity of incident, natural light. The reduction of the quantity of light caused by the polarizing plate results in a darker display image and therefore requires, by necessity, a substantially increased quantity of incident light to obtain a bright display image.

In contrast, the optical rotation layer recited in the claims does not have the function of making a linearly polarized light from natural light, as it has a different function. When natural light is incident on an optical rotation layer only natural light emanates. Similarly, linearly polarized light may only emanate from an optical rotation layer if linearly polarized light is incident on the layer. Further, the

use of an optical rotation layer permits linearly polarized incident light to be rotated at a certain angle, e.g., 90 degrees and 45 degrees. Moreover, in contrast to an absorbing polarizer, the quantity of light of the rotated linearly polarized light emanating from an optical rotation layer is nearly 100% of the quantity of light incident on the layer. Thus, applicants respectfully assert that an absorbing polarizing plate and an optical rotation layer are substantially different in function and are not analogous; thus, it would not have been obvious to substitute an optical rotation layer for an absorbing polarizer at the time the invention was made.

Even assuming arguendo that the Examiner's combination was proper, which applicants traverse, substituting the twisted nematic liquid crystal display of Kubota for the display device 6 of Asakura would result in S-polarized light coming out to the absorbing polarizer 7A of Asakura and P-polarized light would be absorbed by the absorbing polarizer 7A. Thus, the quantity of light of the resulting S-polarized light would be  $1/\sqrt{2}$  or less of the quantity of incident light directed on the absorbing polarizer. Importantly, such a combination would likely result in an undesirable double image problem caused by double reflections from the front and back surfaces of the transparent plate.

Additionally, claims 1 and 3 recite, the "optical rotation layer being adapted to optically rotate the plane of polarization of the display light from the liquid crystal display by an angle of about 45°." This permits S-polarized and P-polarized light to emanate from the second optical rotation layer, with the use of the claimed liquid crystal display designed to generate a display light having a plane of

polarization inclined by an angle of about 45 degrees. In other words, if the rotation angle of the optical rotation layer deviates substantially from 45 degrees, S-polarized and P-polarized light will not emanate from the layer. The claimed second optical rotation layer is admittedly not disclosed by the applied references and is only suggested by applicants' specification. It would not have been obvious to replace the claimed second optical rotation layer with an absorbing polarizer. Accordingly, withdrawal of the rejection is hereby respectfully requested.

In view of the foregoing amendments and remarks, the application is respectfully submitted to be in condition for allowance, and prompt favorable action thereon is earnestly solicited.

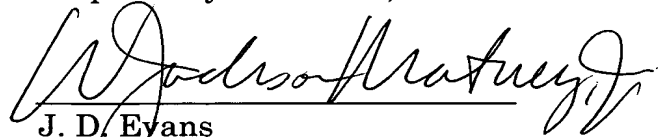
If there are any questions regarding this amendment or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response, and please charge any deficiency in fees or credit any overpayments to Deposit Account No. 05-1323 (Docket #3007/48504).

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Respectfully submitted,

A handwritten signature in dark ink, appearing to read "J. D. Eyans", written over a horizontal line.

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IN THE CLAIMS

Please amend claims 3 and 4 as follows:

3. (Amended twice) A display system comprising:
- a transparent plate;
  - a liquid crystal display for generating a display light of information, said display light having a plane of polarization inclined by an angle of about 45° relative to a vertical axis of an image plane of said liquid crystal display;
  - a first optical rotation layer disposed to a [second] first surface of said transparent plate, said optical rotation layer being adapted to optically rotate the plane of polarization of the display light incident thereon by an angle of about 90°, the display light from said first optical rotation layer being reflected [on the] from a second surface of said transparent plate and directed toward an eye of an operator; and
  - a second optical rotation layer disposed between the image plane of said liquid crystal display and a [second] third surface of said transparent plate, said second optical rotation layer being adapted to optically rotate the plane of polarization of the display light from the liquid crystal display by an angle of about 45° and to allow P-polarized light to emanate toward said first optical rotation layer at Brewster's angle.

4. (Amended) A display system as claimed in Claim 3, further comprising a light-transmittable reflection layer disposed on [a first] said second surface of said transparent plate, the display light passed through said transparent plate being reflected on said light-transmittable reflection layer and directed toward the eye of the operator.